

NEW NEOTROPICAL PHORIDÆ

BY CHARLES T. BRUES

Biological Laboratories, Harvard University

Most of the material dealt with in the present communication was contained in a collection belonging to the Entomological Department of Cornell University. This was sent to me for identification and the holotypes of the new species have been returned to the Cornell museum.

Several of the species were collected on the western slope of the Andes in central Peru by Professor J. C. Bradley when he visited the region with an expedition from Cornell University in 1920. Others were obtained during the same year, on the very interesting Chiloë Island, which lies in the Pacific Ocean, just off the Chilean coast.

One species collected some years ago in Cuba by the writer is included also.

Diploneura Lioy*Diploneura (Dohrniphora) pyricornis* sp. nov.

♂. Length 2.5 mm. Brownish testaceous; front black above, shading to pale yellowish brown below at the frontal margin; abdomen honey yellow with the extreme sides of the third and fourth tergites black; antennæ very pale, clear yellow; palpi and legs concolorous with the body. Front fully one-third wider than high, its surface smooth and noticeably shining but not punctate. Postantennal bristles very close together; lower transverse row of four bristles straight, the median bristles equidistant from one another and from the eye margin, the lateral bristles removed from the eye by a short distance; upper frontal row of four with the median pair very slightly higher than the lateral ones, each directly above the lower median bristles, but the lateral ones are very close to the eye-margin; ocellar row of four bristles, with the median ones much nearer to one another than to the lateral bristles. Ocelli in a very low triangle or curved line. Antennæ pyriform or conical, really more or less crescent-shaped, as the edge next the face is con-

cave and the outer one convex, about twice as long as wide; apex pointed and extending well beyond the lowest lateral frontal bristle, not noticeably enlarged. Arista clearly sub-apical, considerably thickened at the base, not much longer than the antenna. Postocular cilia small, the cheeks each with a very strong bristle; palpi not enlarged, densely beset with strong bristles below, near to, and at, the apex. Thorax very stout, the mesonotum very broad and weakly convex, considerably broader than long; its surface shining, with very sparse black hairs; one pair of widely separated dorsocentral bristles. Scutellum very short, more than three times as wide as long; with four marginal bristles of equal length, the median ones very widely separated. Propleura with a large bristle below the spiracle. Mesopleura entirely bare. Abdomen with the sixth tergite lengthened, its upper surface dull, without hairs except for four bristly ones near apex. Hypopygium very inconspicuous, its lamella strongly bristly. Front tibia with the usual four bristles, placed at the basal third, middle, apical third and near apex on the anterior surface; their tarsi simple, moderately slender. Middle tibiae with a hair-seam that extends to its middle as a very thin line; apical half of the tibia with five or six indistinct transverse comb-like rows of minute, white bristles; a pair of bristles, one on each side of the seam, near the base and an anteroventral one near the apex. Hind tibiae with a single dorsal hairseam, weaker toward the apex, and a similar weak series of comb-like bristles, with a series of four rather small bristles on the anterior face between the basal and apical fourth. Hind femora with a series of rather conspicuous curved hairs on the apical third of the lower edge. Wings slightly yellowish; veins brown, the third vein paler. Costa extending somewhat beyond the middle of the wing, its bristles short and closely placed; first section of costa two and one-half times as long as the second and third together; third less than half as long as the second (25:7:3); fork of third vein very acute; fourth vein weakly curved; fifth nearly straight; sixth very weakly bisinuate. Halteres yellow.

Type from "Upper Reaches" of Pachitea, Peru, July 21, 1920, Cornell University Expedition. Type in the Cornell Collection, a second male from the same locality has the abdomen darker above, with the third, and fourth tergites successively

more infuscated and with sharply pale bands along their posterior margins.

This species resembles *D. anteropinalis* Borgm., but differs in the wider front and conspicuously elongated, pointed antennæ of the male.

Diploneura (Dohrniphora) opposita Borgmeier.

Arch. Mus. Nac., Rio de Janeiro, vol. 25, p. 107 (1925)

A single female from La Sombre, Peru, August 22, 1920 (Cornell Univ. Exped.), agrees closely with Borgmeier's description of this species which is based on material from Petropolis, Brazil.

Diploneura (Dohrniphora) monticola Borgmeier.

Arch. Mus. Nac., Rio de Janeiro, vol. 25, p. 103 (1925)

One female from Bello Horizonte, Minas Geraes, Brazil, November 1919 (Cornell Univ. Exped.).

Conicera Meigen

Conicera chiloënsis sp. nov.

♂. Length 1.4 mm. Dark brown or piceous, the abdomen black. Pleuræ lighter, distinctly brown above and yellowish brown below. Legs quite uniformly dark brown. Wings slightly infuscated on the apical half; veins dark brown. Front considerably more than twice as broad as long, with only ten bristles, as the postantennals and lower laterals are absent. Antial bristles almost equidistant from one another and the eye-margin, slightly nearer to the latter; curved medially so that they cross one another, directed almost horizontally forward, as strong as the other frontal bristles. Four bristles in the lower frontal line placed near to the lower frontal margin and forming a transverse line that is slightly concave; the bristles equidistant, with the lateral one barely separated from the eye-margin. Ocellar row of four equidistant bristles. Surface of front subshining, slightly pollinose, without median groove. Third antennal joint broad at base, conical, with the upper surface concave so that the tip is crescent-shaped, not extending quite to the level of the top of the eye; arista long, pubescent, thickened basally. Eyes microscopically hairy, cheeks each with three rather weak bris-

tles; postocular cilia strong. Palpi small, with the usual bristles present, but of small size. Mesonotum rather dull, clothed with well developed sparse hairs; much narrowed behind; one pair of long, but not stout, dorsocentral bristles. Scutellum with two very long bristles. Mesopleura entirely bare. Surface of abdomen dull, the hypopygium shining, pollinose along the lower part of the sides. Wings hyaline, with a slight brownish tinge at the base and with distinct infuscation apically. Costa extending to .45 of the wing length; first section more than twice as long as the second (27:12). Costal cilia long, rather closely placed, fully as long as the width of the costal cell, the cilia of the upper series not extending beyond the tip of the first vein. Third vein simple; no indication of a fork. Legs rather slender, the tibiae all clothed with minute bristly hairs, front tibiae with a small, but distinct bristle on the anterior side at the basal third; middle tibiae with an anterior bristle at the basal fifth and a dorsal one barely farther from the base; with a third anterior bristle just before apex. Hind tibiae with four bristles; one posterodorsal, at basal fourth and another at apical third; one anterodorsal at basal fifth and another before the middle; in addition to these there is a dorsal bristle just before tip. Halteres piceous.

Type ♂ from Ancud, Chiloë Island, Chile, April 2-7, 1920 (Cornell Univ. Expedition).

This is a very unusual species, but agrees rather closely with two described by Schmitz from Patagonia. These he has placed in a separate group on account of the complete absence of post-antennal and lower lateral bristles, long decussate antial bristles and extensive bristling of the hind tibiae. The present species differs strikingly by the longer second section of the costa which is much longer in the male than in males of the Patagonian forms.

Megaselia Rondani

Megaselia (*sens. str.*) *andicola* sp. nov.

♂. Length 1.4 mm. Black; lower portions of pleurae piceous or very dark brown; antennae piceous, with the inner surface of the third joint yellowish; palpi pale yellow; legs testaceous, although appearing darker on account of the black hairy covering, coxae darker basally. Halteres pale yellowish brown. Wings hyaline, the heavy veins rather pale brownish. Front slightly,

but distinctly wider than high; four postantennal bristles, the lower pair not much shorter than the upper; antial bristles close to the lowest laterals, scarcely below them but much farther from the eye-margin; lower transverse row of four equidistant bristles slight bowed downwards medially; ocellar row as usual, large like the other frontal bristles. Ocellar tubercle and median frontal line well defined, the surface of the front sub-shining, distinctly white pollinose. Postocular cilia stout, of moderate length; cheek just below the eye with two stout downwardly directed bristles; three above these toward the antennæ small and delicate. Palpi small, flat, with moderately long bristles below toward apex. Third antennal joint large, but not noticeably swollen, rounded, the arista one-half longer than the front, with short pubescence. Proboscis very short, stout, bluntly pointed at its tip. Mesonotum shining, with fine pubescence. One pair of dorsocentral bristles set very close to the scutellar suture. Scutellum narrow, triangular, with two bristles. Pleuræ shining, but noticeably pollinose above, entirely without hairs or bristles, except two small bristles at the lower anterior corner of the propleura. Abdomen dull black, segments of approximately equal length, with a few weak, bristly hairs at the sides and a marginal row on the posterior margin of the sixth tergite. Hypopygium simple, cylindrical, appearing quadrate or somewhat tapering posteriorly in lateral view. Legs slender, including the hind femora which are three times as long as broad. Front tarsi slender. Middle tibiæ with the dorsal black line distinct at apex, with about eight weak setulæ just inside the dorsal line. Posterior femora slender, exactly three times as long as their greatest length. Dorsal hair-line of hind tibiæ complete, straight except for a slight angulation very near to the base; with a single postero-dorsal series of eight bristles, each about the width of the tibia. All tarsi very slender. Wings narrow, costa less than half the wing-length (70:31); its bristles delicate, moderately long and rather closely placed; first section of costa as long as the other two sections together; second section three times the length of the third (28:21:7). Third vein absolutely straight except beyond the very narrow cell formed by the very oblique second vein; fourth vein strongly curved at base, but nearly straight beyond; fifth vein curved near base, very slightly sinuous beyond; sixth sinuous; seventh practically straight.

One male from Matucana, Peru, May 27, 1929 (Cornell University Expedition).

Among the Neotropical species this is related to *M. obscurata* Enderlein to which it will run in Borgmeier's key (Rev. Entom., vol. 5, p. 441) but differs in the frontal chaetotaxy. In Borgmeier's earlier paper (Arch. Mus. Nac. Buenos Aires, vol. 25, p. 139) it falls near *M. stephanoidea* Borgm. and *M. concava* Borgm., from either of which it may be distinguished by the lengths of the costal divisions and it lacks the bristles present on the sixth abdominal tergite in *M. stephanoidea*, although this may be a secondary sexual character. It resembles also *M. opilionidis* Borgmeier, but the ovipositor is not chitinized and there are only two scutellar bristles.

Megaselia (*sens. str.*) *rimacensis* sp. nov.

♀. Length 1.7 mm. Front and abdomen black; thorax above dark fuscous; pleuræ lighter brown below; front legs and all coxæ pale yellowish; four hind legs brownish yellow with the hind femora indistinctly blackened at tips. Antennæ black; yellow-brown at the base of the third joint; palpi light brown. Wings hyaline, the heavy veins light fuscous; halteres honey yellow. Front subshining, not polished, with a deep median groove. Four postantennal bristles, the lower pair half as long as the upper ones and very much more slender; antial bristles inserted at the same level as the lowest lateral bristles and separated from them by less than one-third the distance to the upper postantennals; middle row of four bristles equidistant, curved downwards medially, the median bristles midway between the ocelli and postantennal bristles; third joint of antennæ much enlarged and flattened, at least as broad as two-thirds the height of the front. Palpi slightly flattened, with five or six rather small bristles. Mesonotum strongly convex, shining; one pair of dorsocentral bristles very close to the semi-circular scutellum, which bears one pair of widely separated long bristles and a single pair of minute hairs. Propleura with several bristles above and below, near the posterior margin. Mesopleura entirely bare, slightly roughened and dull on its upper portion behind. Surface of abdomen opaque above; second to fifth segments slightly decreasing in length; sides of second tergite with half a dozen bristly hairs at each side; all the tergites with a series of minute, bristly hairs along the

posterior margin, noticeably longer on the more apical tergites. Hypopygium small, its surface pruinose; rounded, with scattered, stiff, bristly hairs below and apically above; apical lamella pale yellow, with very weak scattered hairs. Legs slender, except the front tarsi which are comparatively stout although not really thickened. Hair seam on middle tibiae distinct only on basal half; the row of setulae extremely delicate. Hair seam of hind tibiae complete, straight, the setulae distinct, but very weak and closely placed. Costal vein slightly less than one-half the wing length (46:100); costal cilia moderately long, about equalling the length of the third section of the costa. First section of costa slightly more than twice as long as the second; third half as long as the second (35:17:9); fourth vein weakly curved, fourth and fifth each feebly bisinuate; seventh distinct, slightly curved.

Type and one paratype from Matucana, Peru, May 27, 1920. Matucana is in the valley of the Rio Rimac, about 4000 feet above sea level. Type in the collection of Cornell University.

This species is from the same locality as *M. andicola*, but is not very closely related. The tibial setulae are minute and the wing venation is very different. In Borgmeier's key (Arch. Mus. Nac. Rio de Janeiro, vol. 25, p. 139, 1925) it runs to *M. stephanoidea* Borgm. from which it differs by color and the much longer third costal section, while the entire costa is less than half the length of the wing. Among Enderlein's species as tabulated by Borgmeier, it resembles *M. obscurata* and related species, from which it differs at once by the more nearly equal first and second sections of the costa.

Megaselia (*s. str.*) *cavita* sp. nov.

♀. Length 2.2 mm. Head and thorax yellow, the ocellar triangle black and the front strongly infuscated, except the sides and the front margin. Abdomen black, suffused with fulvous over the medial portions of the second, third and fourth tergites; sixth tergite with a similar large pale area at each side. Legs and hypopygial projection testaceous. Wings faintly brownish, with strong dark venation. Halteres piceous. Front slightly, but distinctly wider than long, its bristles stout, but not especially long, surface rather shining; ocellar tubercle and median groove well developed. Two large postantennal bristles placed very close together; lower pair absent. Antial bristles on the

lower margin of the front, twice as far from the eye as from the postantennals and dividing the margin into three equal parts. Lowest lateral bristle far above the antial and much farther from the eye than usual. Upper transverse row of four bristles equidistant, forming a line that curves downward medially. Antennæ greatly enlarged, oval or slightly pyriform, as long as half the eye-height, considerably longer than wide; arista stout, as long as the head-height. Palpi small, flattened, with five moderately long bristles along the apical half of their outer edge. Two large downwardly directed bristles on the cheek, but none above these in front. Postocular cilia of moderate size. Mesonotum rather shining, with one pair of dorsocentral bristles. Scutellum broad, fully twice as wide as long, the posterior margin gently arcuate; four equal scutellar bristles. Propleura with several weak bristly hairs, next to the front coxa, and a few similar ones at the upper angle. Mesopleura entirely bare and shining above. Abdomen entirely devoid of any noticeable bristly hairs above, except for a few exceedingly minute ones at the sides of the second tergite, and a weak fringe at tips of the sixth and seventh tergites. Second to fifth tergites of about equal length; sixth noticeably longer. Hypopygium small, retracted, its median projection with unusually weak bristly hairs. Legs slender, including the front tarsi. Middle tibiæ with a very feeble dorsal line and a corresponding weak series of postero-dorsal setulæ; hind tibiæ with dorsal hair-line and a postero-dorsal series of 10-12 weak setulæ the longest of which are much shorter than the width of the tibia; hind femora slender, with no noticeable bristly hairs below. Costa reaching beyond the middle of the wing (100:57), its bristles closely placed, very short, not much longer than the width of the costal vein; first section of costa one-half longer than the second; third very short (48:32:5); cell formed by the second vein very small and narrowly ovate. Third vein widely separated from the costa at its middle as it is curved posteriorly and the first section of the costa is noticeably curved forward. Fourth vein evenly arcuate, not recurved at either base or apex; fifth vein sinuate; sixth very slightly so; seventh strong. Base of the third vein without bristles.

Type from the San Juan Mts., near Cienfuegos, Cuba, Jan. 1927 (C. T. and B. B. Brues).

M. cavita is conspicuous by the much enlarged antennæ of the

male which are longer than wide, differing in this respect from *M. amplipennis* Borgm. in which they are widened. From *M. furcella* End., also with enlarged antennæ, it differs by the nearly quadrate front and in the disposition of the frontal bristles. It resembles several other Neotropical species in the long costa, short fringe and the presence of four scutellar bristles. Among these it differs from *M. opilionidis* Borgm. by the bristling of the front; from *M. brasiliensis* Borgm. by the large antennæ; from *M. membranosa* Borgm. by the different wing venation; from *M. parvitergata* Borgm. by the absence of the lower pair of postantennal bristles. From the common *N. xanthina* Speiser and *M. scalaris* it is readily distinguished by the enlarged antennæ of the male.

Megaselia (*s. str.*) *femoralis* Enderlein

I collected a large series, representing both sexes in the San Juan Mountains in southern Cuba. Described from Brazil, *M. femoralis* has previously been taken in Panama and as far north as Costa Rica. The present record shows that it extends also into the West Indies. In some Cuban specimens the thorax is quite brownish above and the abdomen is very pale dorsally at the base, with suffused brown on the third to fifth tergites. The front may be brownish below, but always shows the highly polished steel-blue color above.

Megaselia (*Aphiochæta*) *asthenichæta* sp. nov.

♀. Length 1.5 mm. Black or very dark piceous, the anterior corners of the mesonotum and the anterior part of the propleura reddish brown; palpi and antennæ entirely black; mesopleura and metapleura irregularly stained with reddish brown; wings slightly, but distinctly infuscated; veins very dark brown. Legs strongly infuscated, especially the middle legs which have the extreme tip of the femora and tibiæ pale; trochanter testaceous; front tibiæ and base of hind femora yellowish testaceous. Halteres very light brown. Front narrow, one-fifth higher than wide, with distinct ocellar tubercle and unusually deep median frontal groove. Four postantennal bristles, the lower pair close together as usual; upper and stronger pair widely separated, as far from the median line as from the eye-margin, placed slightly higher than the antial bristles which are directly below the lowest lateral bristles, next to the eye and at the lateral angle

of the front; middle transverse row of four equidistant bristles forming a practically straight line, its lateral bristles placed midway between the lower and upper lateral bristles. Surface of front slightly shining, but not polished, sparsely clothed with short hairs, the frontal bristles large and stout. Antennæ small, with long, pubescent arista. Palpi very small, with three or four large bristles below. Cheeks each with three stout downwardly directed bristles below and a series of smaller ones extending upward to the antennæ. Postocular cilia of normal length. Mesonotum narrow, its surface shining, clothed with dense short hairs; one pair of dorsocentral bristles. Scutellum subtriangular, with four well developed bristles. Propleura with two stout bristles at the lower anterior angle and one just below the spiracle. Mesopleura with a patch of hairs above and a conspicuous bristle of moderate size, clearly smaller than the frontal bristles; also with a smaller bristle just below the edge of the mesonotum. Abdomen narrowed apically, none of the tergites lengthened, without any bristly hairs above except just before the small, retracted hypopygium; sides of abdomen with sparse bristly hairs, larger on the second segment. Front tibiæ bristly on the dorsal surface, but without any distinct linear series; front tarsi stout, but not conspicuously thickened. Middle tibiæ with a dorsal hair-seam extending almost to the apex, and a posterodorsal series of setulæ, about eight in number, each approximately as long as the width of the tibia; a few antero-dorsal setulæ for the basal half. Hind tibiæ with complete dorsal hair-seam and a series about eleven postero-dorsal setulæ, these large and stout, as long as the width of the tibia, except the several ones at the base which are very small and weak; no antero-dorsal setulæ. Wings narrow, nearly three times as long as wide (64:23); costal vein long, extending beyond the middle of the wing (55:100); first division nearly as long as the second and third together, third more than one-third as long as the second (30:24:9). Fringe moderately long, the bristles about equal to the second vein in length. Fourth vein feebly, evenly curved, except for a sharper bend near the base. Fifth vein sinuous, more distinctly bent just before the middle; sixth sinuous; seventh very slightly so. Third vein with a single bristle at the extreme base.

Type from Puerto Bermudez, Rio Pichla, Peru, July 18-19, 1920 (Cornell University Expedition).

This species differs from most of the Neotropical species of the subgenus *Aphiochæta* by the presence of four scutellar bristles in combination with a large bristle on the mesopleura. It resembles *M. luteicauda* Borgm. and *M. pteryacantha* Borgm. in having a bristle at the base of the third vein, but differs by the black palpi, entirely black abdomen and narrower front. From *M. pilipleura* Borgm. it differs in color, size and frontal chætotaxy. From *M. angustifurcate* it differs particularly in wing venation and also by the black antennæ and palpi. In general habitus *M. asthenichæta* resembles *M. minor* Zett. although structurally very different.